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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,937	12/09/2005	Yasuhiko Kasama	8075-1010	5930

466 7590 02/20/2007  
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EXAMINER
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ROGERS, DAVID A

ART UNIT	PAPER NUMBER
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2856

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/538,937

Applicant(s)

KASAMA ET AL.

Examiner

David A. Rogers

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/13/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I (claims 1-11) in the reply filed on 18 December 2006 is acknowledged. Non-elected claims 12-26 have been cancelled by the applicant.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9 recites the limitation "electrodes" in line 3. There is insufficient antecedent basis for this limitation in the claim.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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6. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification on page 26 (lines 21-22) discloses a sensor having only one molecule between a pair of electrodes. However, lines 10-12 discloses that a distal end of one molecule of the conductor polymer is modified by an ion group. Are these two different embodiments? If so how does the applicant actually get only one molecule of a conductive polymer to be located between electrodes? On page 27 (lines 15-17) it is disclosed that a film having a length of one molecule is used. It is not clear how the applicant uses one molecule to form a film.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 7, 10, and 11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by United States Patent 4,587,840 to Dobler *et al.*

Dobler *et al.* discloses an end-face sensor comprising a linear body (reference item 14a) with an insulator material (reference item 14b) and a receiving part (reference item 10) for receiving information from a subject; e.g., for receiving pressure from a fluid.

With regard to claim 10 the electrodes (reference items 12 and 13) are circuit elements formed continuously in a longitudinal direction.

With regard to claim 11 the linear member has a cross section having plural regions for forming a circuit that is continuous in a longitudinal direction. See, for example, figure 5.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dobler *et al.* as applied to claim 1 above, and further in view of United States Patent 6,388,556 to Imai *et al.*

Dobler *et al.* teaches a sensor have a pressure sensitive film (reference item 10). The film must be conductive in order to allow the sensor to function.

Imai *et al.* teaches that pressure sensitive films include films formed of polyphenylene which offers high heat resistance.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Dobler *et al.* with the teachings of Imai *et al.* in order to provide a pressure sensitive film of polyphenylene in order to allow the sensor to operate in high temperature areas.

11. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent Application Publication 20030121976 to Ostergard in view of Dobler *et al.*

Ostergard teaches that photodiodes as light sensors are known. See paragraph 33. Ostergard does not teach a light sensor on a linear member

Dobler *et al.* teaches that it is known to provide a linear member as a mount for a sensor.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Ostergard with the teachings of Dobler *et al.* in order to provide a linear mount for a light sensor in order to allow the light sensor to be installed in predetermined areas; e.g., dark rooms, so that light leaks can be detected.

12. Claims 1, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 4,249,418 to Ebata in view of Dobler *et al.*

Ebata teaches that acoustic wave sensors are useful as temperature sensors. Official notice is hereby taken that it is known that acoustic wave

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sensors can operate at ultrasonic frequencies. Ebata does not teach a sensor mounted to a linear member.

Dobler *et al.* teaches that it is known to provide a linear member as a mount for a sensor.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Ebata with the teachings of Dobler *et al.* in order to provide a linear mount for a ultrasonic/temperature sensor in order to allow the sensor to be installed in predetermined areas; e.g., the wall of a chamber so that the temperature can be easily detected and monitored.

13. Claims 1, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 4,343,688 to Harwood in view of Dobler *et al.*

Harwood teaches that acoustic wave sensors are useful as humidity sensors. Official notice is hereby taken that it is known that acoustic wave sensors can operate at ultrasonic frequencies. Harwood does not teach a sensor mounted to a linear member.

Dobler *et al.* teaches that it is known to provide a linear member as a mount for a sensor.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Harwood with the teachings of Dobler *et al.* in order to provide a linear mount for a ultrasonic/temperature sensor in order to allow the sensor to be installed in predetermined areas; e.g.,

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the wall of a chamber; e.g., a weathering chamber, so that the humidity can be easily detected and monitored.

### **Conclusion**

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

United States Patent 3,838,379 to Gieles *et al.* teaches an end-face sensor (reference item 5, 7) located at the end of a linear body (reference item 1). The sensor element receives information from a subject in the form of pressures. The sensor's resistance changes and is output as a different piece of information.


15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Rogers whose telephone number is (571) 272-2205. The examiner can normally be reached on Monday - Friday (0730 - 1600). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
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10 February 2007

  
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